IN THE ABSTRACT:

For the purpose of enabling reduction of exposure dose, in an X-ray controlling method for an X-ray imaging apparatus for producing an image based on detected X-ray signals, an upper limit of an X-ray exposure dose to a subject to be imaged is set (603), and the tube current of an X-ray tube is modulated so that the exposure dose does not exceed the upper limit (606–610). The modulation of the tube current is achieved by finding an exposure dose predicted value based on an imaging protocol, and modifying a tube current set value in the imaging protocol when the predicted value exceeds the upper limit.